

IN THE CLAIMS:

Claims 1-97 (Canceled)

98. (Currently amended) ~~The assembly of claim 86~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening sized to receive and provide access to one or more energy storage units insertable therein;

a computing unit positioned within the elongated housing and connectable to at least one sensor which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition, the computing unit being configured to receive and process the sensor output signal, wherein the computing unit is capable of directing the obtainment of sensor readings according to at least two different sampling schedules

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end; and

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit.

Claims 99-119 (Canceled)

119. (Currently amended) ~~The assembly of claim 105~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the

well or other hole, the tool comprising:

an elongated housing including a first end which comprises a removable sensor component configured to engage and disengage with the first end, the sensor component further including at least one sensor positionable therein, where the at least one sensor is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition;

said elongated housing further including a second end, where said second end includes an opening sized to receive and provide access to one or energy storage units insertable therein;

a computing unit positioned within the elongated housing and connectable to the at least one sensor, the computing unit being configured to receive and process the sensor output signal, wherein the computing unit is capable of directing the obtainment of sensor readings according to at least two different sampling schedules;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end; and

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit.

Claims 120-124 (Canceled)

125. (Currently amended) ~~The assembly of claim 124~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening sized to receive and provide access to one or more energy storage units insertable therein;

a computing unit positioned within the elongated housing and connectable to at least one sensor which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition, the computing unit being configured to receive and process the sensor output signal;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end;

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit; and

a removable cable assembly which is connectable to the second end so as to enclose the elongated housing and further configured to electrically interconnect with said electrical assembly, the removable cable assembly including a cable component with a housing portion for engaging and disengaging the second end of the elongated housing and a cable which terminates in the cable component and includes at least one: a first plurality of electrical conductors for carrying data signals, a second plurality of electrical conductors for carrying power signals;

wherein the cable component is a vented cable, having a first fluid conductive path extending along the length of the cable such that when the elongated housing and cable assembly are connected and the at least one sensor is a pressure sensor, the pressure sensor is capable of

taking pressure readings adjusted for atmospheric pressure.

Claims 126-137 (Canceled)

138. (Currently amended) ~~The assembly of claim 124~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening sized to receive and provide access to one or more energy storage units insertable therein;

a computing unit positioned within the elongated housing and connectable to at least one sensor which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition, the computing unit being configured to receive and process the sensor output signal, wherein the computing unit is capable of directing the obtainment of sensor readings according to at least two different sampling schedules;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end;

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit; and

a removable cable assembly which is connectable to the second end so as to enclose the elongated housing and further configured to electrically interconnect with said electrical assembly, the removable cable assembly including a cable component with a housing portion for

engaging and disengaging the second end of the elongated housing and a cable which terminates in the cable component and includes at least one: a first plurality of electrical conductors for carrying data signals, a second plurality of electrical conductors for carrying power signals.

Claims 139-147 (Canceled)

148. (Currently amended) ~~The assembly of claim 145~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening sized to receive and provide access to one or more energy storage units insertable therein;

at least one sensor positioned within the first end which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition;

a computing unit positioned within the elongated housing and in electrical connection with the at least one sensor, the computing unit being configured to receive and process the sensor output signal;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end;

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit; and

a removable cable assembly which is connectable to the second end so as to enclose the

elongated housing and further configured to electrically interconnect with said electrical assembly, the removable cable assembly including a cable component with a housing portion for engaging and disengaging the second end of the elongated housing and a cable which terminates in the cable component and includes at least one: a first plurality of electrical conductors for carrying data signals, a second plurality of electrical conductors for carrying power signals;

wherein the cable component is a vented cable, having a first fluid conductive path extending along the length of the cable such that when the elongated housing and cable assembly are connected and the at least one sensor is a pressure sensor, the pressure sensor is capable of taking pressure readings adjusted for atmospheric pressure.

Claims 149-160 (Canceled)

161. (Currently amended) ~~The assembly of claim 145~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening sized to receive and provide access to one or more energy storage units insertable therein;

at least one sensor positioned within the first end which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition;

a computing unit positioned within the elongated housing and in electrical connection with the at least one sensor, the computing unit being configured to receive and process the sensor output signal, wherein the computing unit is capable of directing the obtainment of sensor readings according to at least two different sampling schedules;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more electrodes of the one or more energy storage units components upon insertion through the opening of the second end;

an electrical assembly including the at least one electrical contact and an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit; and

a removable cable assembly which is connectable to the second end so as to enclose the elongated housing and further configured to electrically interconnect with said electrical assembly, the removable cable assembly including a cable component with a housing portion for engaging and disengaging the second end of the elongated housing and a cable which terminates in the cable component and includes at least one: a first plurality of electrical conductors for carrying data signals, a second plurality of electrical conductors for carrying power signals.

Claims 162-166 (Canceled)

167. (Currently amended) ~~The assembly of claim 166~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening;

a computing unit positioned within the elongated housing and connectable to at least one sensor which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition, the computing unit being configured to receive and process the sensor output signal;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more components positionable within the second end of the elongated housing; and
an electrical assembly including an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit;

wherein the one or more components comprise at least one of: the electrical assembly and one or more energy storage units.

Claims 168-177 (Canceled)

178. (Currently amended) ~~The assembly of claims 167~~ A tool assembly adapted for insertion into a well or other hole to direct monitoring of at least one condition existing in the well or other hole, the tool comprising:

an elongated housing with first and second ends, where the second end includes an opening;

a computing unit positioned within the elongated housing and connectable to at least one sensor which is configured to provide a sensor reading of at least one monitored condition, the sensor reading comprising a sensor output signal including sensor reading data corresponding to the at least one monitored condition, the computing unit being configured to receive and process the sensor output signal;

a main circuit board positioned within the elongated housing, the main circuit board including at least one electrical contact positioned to contact one or more components positionable within the second end of the elongated housing; and
an electrical assembly including an electrical circuit configured to conduct electrical signals between the second end of the elongated housing and the computing unit.

wherein the one or more components comprise at least one of: the electrical assembly and one or more energy storage units;

wherein the one or more energy storage units comprises at least two AA cells in series.

Claims 179-186 (Canceled)